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Popular culture in the United States has played one of the most influential roles in establishing one's identity. Society's norms and rules often determine what is considered taboo or acceptable, and these norms and rules influence multiple facets of people's lives. The clothes we wear, the foods we eat, and the activities we enjoy all have common social meanings assigned to them that are dictated by popular culture of the time. Fashion is one example of this. Historically, clothing served as a means of displaying or revealing one's gender identity, religious views, and socio-economic class. Little has changed in our current society, as the society's elite determine much of what is considered popular fashion.

American history has developed a focus on the individual, emphasizing the modification of one's outer appearance as a public display of one's own ideals, values, and beliefs. It is common to find that people assign labels to refer to the physical appearance of others, and popular terms such as "prep," "Goth," "urban," and "hipster" have been created to categorize people with common styles of dress and physical representations into groups from which other traits are assumed. For example, persons who choose to dress themselves according to the "Gothic" style of dress may be automatically assigned other personality traits. They are often seen as dark, introverted, brooding, cynical, and even self-pitying. All these labels may be assigned based solely on outer appearance without regard for one's actual personality. One commonly overlooked facet of society is the length, color, and texture of the hair on one's head. Head hair is similar to style of dress because it too is easily manipulated, changed, and given meaning. Self-expression in hair fashions have been adopted by young people who develop their symbolic associations most readily from the media's portrayal of hair in popular culture. The influence of popular culture within society in assigning meaning to different forms of hairstyles, hair color, and length fluctuates. Society's perception of hair evolves and changes with the portrayal of fashion in the media.

Women use their hair to establish both a group identity and as a form of everyday resistance from social norms established by dominant culture. As the topic of hair seems to be of more cultural significance to women than men, a study of its sociology and symbolism and its assignment to women would seem of greater importance. Women generally have longer head hair than men and spend significantly more time and money than men styling and maintaining it. Many stereotypes have also surfaced assigning attributes to women based solely on the appearance of head hair. Stereotypes related to women and hair colors include: "dumb blonde," "fair maiden," and "blonde jokes;" and with regard to hair length, women with shorter hair are often perceived as more masculine than women with long hair. This study, "The Sociology of Hair," attempts to address whether associations to personality have been assigned to women based on the color and length of head hair. In addition, this study also seeks to answer questions such as: Are blondes perceived as happier? Are women with short hair perceived as being trustworthy? This study will attempt to determine whether these perceptions are consistent between men and women. Finally, this research studies the role head hair plays on determining a woman's overall physical attractiveness or beauty.

This study was conducted through random survey sampling administered on the Western Connecticut State University Midtown Campus. The surveys were conducted randomly, and included samples of both male and female participants, requiring no racial preference among participants. In order to distribute large numbers of surveys at a given time, classes were chosen at random, with the permission of the classroom instructor. In smaller groupings of students, surveys containing the same stimulus were used, while in larger groupings of students, surveys containing multiple stimuli were used. The stimuli presented in the surveys contained digitally modified images of Caucasian and African American women. These three-dimensional images consisted of women with varying hair colors and lengths. Although the images contained various hair colors and lengths, the image of the Caucasian woman remained consistent in six versions of the survey, while two different images of African American women were used. In the surveys containing images of the Caucasian woman, the hair colors used were red, blonde, and brunette, and were presented as both short and long. Surveys that contained images of the African American women, varied by hair texture, were classified as "natural" and "processed." Participants were then asked to respond to questions about the stimuli that were designed to reveal views about personality traits and physical attributes, including: confidence, happiness, and trustworthiness, degree of maintenance (e.g. high or low maintenance), intelligence, and value of appearance, femininity, likability, and attractiveness.

Literature Review

The purpose for this study comes from its validity within society, as the issues addressed in this study are issues the broader

community has faced and has previously attempted to understand. The great importance hair plays in the lives of women and girls is addressed in *Rapunzel's Daughters: What Women's Hair Tells Us about Women's Lives* by Rose Weitz. Weitz seeks to understand the underlying meanings that exist today among women and uses her research to give readers a better understanding of this phenomenon. For women and girls, hair has been the primary way in which their identity is declared to those they meet. They are socialized to accept this connection to hair at an early age and develop an emotional attachment to their hair. As a prominent sociologist, Weitz utilizes various methods to conduct her research, such as formal interviews with women, girls, and hairstylists, as well as informal conversations with women she meets all from all across the United States. The data provided in *Rapunzel's Daughters* primarily comes from interviews with seventy-four girls and women who respond to questions about the history of their hair, how they believed their hair had affected their lives, and how they managed their hair. In addition, Weitz conducts four focus groups using snowball sampling with heterosexual teens, lesbian and bisexual teens, and women older than 50 in order to represent a diverse group of women.

According to Weitz, hair is a social construct that is deeply connected to the identities of women, and she describes hair as "Part of a broader language of appearance, which, whether or not we intend it, tells others about ourselves" (vxi). Symbols exist within this phenomenon that makes up a broader language is communicated to those we meet to make statements about which we are. This can be done both purposefully and unintentionally as people often misread the intended meanings of these symbols. The first half of *Rapunzel's Daughters* discusses the history of women's hairstyles, introducing a discussion that focuses on understanding how hair is central to the establishment and maintenance of individual and group identity as "Women struggle not only with what it means to be female but also what it means to be white, black, or Hispanic; straight or lesbian; working class or middle-class, and so on" (xix). These chapters contain stories about hair: how teenage girls change and adopt different hairstyles to play with different identities as a means of coping with society's definition of what is acceptable and the conflicts that evolve as girls mature into women and attempt to conform to society's expectations of them.

In the second half of the book, Weitz explores the lessons that children are taught about hair and how these teachings affect them during their adult years. She also looks at the role hair plays in women's intimate relationships, what hairstyles reveal about women's positions in the workplace, hair loss due to illness and the deliberate shaving of hair, hair and aging, and the culture of hair salons. She concludes with a discussion about what women's hair tells us about women's lives and prescribes solutions to dealing with women's hair issues. The relevance of Weitz's work is central to establishing this study's importance, as she establishes that hair deserves its own sociological understanding as a core part of many women's identities.

In "Dude Looks Like a Lady: Exploring the Malleability of Person Categorization," Brebner et al. also lays the foundation for the validity of this study by conducting three experiments to determine the extent to which hair cues drive sex categorization by presenting pictures of men and women as stimuli (2009). In the experiments, participants were asked to classify gender based on facial cues. The article establishes that "Even the briefest of glances at a face is sufficient to furnish a wealth of useful information about an individual (e.g. identity, sex, emotional state)" (Brebner et al., 2009). The experiments included female undergraduate students at the University of Aberdeen who were chosen to identify and label the presented stimuli. Each picture was presented with two conditions, either with or without hair cues. In the first experiment, the person's hair in the picture was digitally cropped and the participant's response times were subsequently noted. The results showed that participants responded quicker to the stimuli and were more accurate in matching and assigning a sex when the faces were presented with hair. The second experiment was identical to the first with one difference. Half of the faces were presented with gender stereotype-congruent hairstyles, that is, men with short hair and women with long hair, while half of the faces were presented with gender stereotype-incongruent hairstyles, that is, men with long hair and women with short hair. The results in this case showed that participants were more likely to respond faster and more accurately when presented with faces containing gender stereotype-congruent hairstyles, than those with gender stereotype-incongruent hair styles.

Overall, the results of this study maintain that hairstyle is most frequently used as a facial cue for sex. As it relates to my study on the sociology of hair, this data may be relevant as women with long hair and men with short hair are least likely to have their genders incorrectly assigned. As my study will deal with both hair color and length, the idea that women with short hair are more likely may be mistaken for men may significantly affect this data which attempts to determine the personality traits associated with hair color and length of hair. This research helps establish that within our society, cues conveyed by hairstyles play a significant role in the perception of men and women, and may be used to separate the identities of men and women. It becomes seen as problematic when women adopt hairstyles which have been culturally assigned to men, leading them to be viewed as "manly" or "less feminine" than other women. This study makes up for what Weitz's study lacks; the

perspective from the other side. *Rapunzel's Daughters* presented substantial a discussion on how women perceive themselves, but delved little into the perception of others.

A study conducted by V. Swami, A. Furnham, and K. Joshi discusses this phenomenon in a broader sense. It is titled, "The Influence of Skin Tone, Hair Length, and Hair Colour on Ratings of Women's Physical Attractiveness, Health and Fertility" (2008). This study focuses on three bodily characteristics: skin tone, hair style, and hair color, and how these attributes affect how a woman is perceived as physically attractive. The authors examined each characteristic, presenting relevant literature that related to each attribute, beginning with skin tone. The second characteristic studied by the researchers, hair color and length, is the most valid and relevant section for the purposes of this research study. The study conducted by Swami et al. examines the "Relative contributions, and possible interactions, of skin tone, hair length and hair colour to judgments of women's attractiveness, health and fertility," by using modified images of the female figure taken from an earlier study as stimuli. The images' variations included three levels of skin tone, two levels of hair color, and two levels of hair length. The survey sample consisted of 130 men and 112 women from a campus in Greater London and was conducted on a voluntary basis. Only participants who described themselves as being of European Caucasian decent were used in the study. Swami et al. note that there is little research which examines the correlation between the color and length of hair on the perception of physical attractiveness, but mention that there has been some evidence in other studies which imply that perceptions of hair color continues to change as fashion and media icons change. They then discuss hair length by mentioning that research available regarding on this characteristic is scarce. However, one study conducted by Terry and Krantz reported that women with long hair were viewed as less socially forceful and more youthful looking (1993).

The results from the study conducted by Swami et al. showed that brunettes were rated more positively than blondes, and that women rated both hair colors more positively than men. There were also two-way interactions between variables. One example is between skin tone and hair length, and skin tone and hair color. Men rated long hair more attractive than short hair for the dark-skinned and medium-skinned figures, but not the light-skinned figures. For the same interaction, women rated long hair as more attractive than short hair only for the dark-skinned figures. For purposes most relevant to this research, "The Sociology of Hair," one interesting finding is that when rating figures for physical attractiveness, health, and fertility, participants appeared to rely on the interaction of skin tone, hair color and hair length, nevertheless, hair color appeared to explain the greatest amount of variance for all three ratings relative to skin tone and hair length. It is the intention of this study to establish the relevance of hair symbols within a greater context, although it would be interesting to produce similar results to the study by Swami et al. in order to draw more specific conclusions and relationships between hair color and length as it relates to associations of physical appearance (2008).

Hair color and length have been associated with other stereotypes besides those relating to physical appearance. A study conducted by Samuel Juni and Michelle Roth, titled "The Influence of Hair Color on Eliciting Help: Do Blondes Have More Fun?" sought to establish the validity of hair color on this common perception (1985). The study opens with a discussion about the relevant research related to the application of hair color as an important tool used to evaluate a person. Conducted using a factorial design, two men and two women in their early and mid-twenties went out onto a busy street counter and asked pedestrians to change 10 pennies for a dime. They used white men and women to pose as those in need of help (Cs) and experiment subjects (Ss). Each C approached nine men and nine women wearing either a blonde wig or brunette wig. Wigs for each gender were identical in style, male Cs were clean shaven and dressed informally, and all Cs wore slacks and shirts. The study concluded that Cs were helped in 42% of interactions. Women tended to help women and men equally, while men were more likely to help women than men. Overall, the results of the study showed that hair color did not play a significantly influential role in soliciting help. They maintain that factors such as the discomfort of Cs with the wigs they wore may have played a disruptive role in the results of their study. However, Juni and Roth assert that the study challenges the blonde stereotype which existed at the time (1985). This research determines that one's hair color can reveal information about an individual's sexual virility and/or passivity. The study mentioned society's association of active-masculinity with men and passive-femininity with women is influenced by hair color and style. This follows that fair-haired or blonde women as viewed as more highly valued in society sexually, while dark-haired man are greater preferred. The article also discussed the stereotype of the supposed purity and cleanliness of fair-haired or blonde women, stemming from mythology which depicted princesses as fair-haired and witches as dark-haired. "The Sociology of Hair" seeks to challenge the results of Juni and Roth's study, who determined that the blonde stereotypes presented blondes as more passive and feminine than brunettes. They proved largely inconclusive in the results of their study.

Stereotypes assigned to women based on the length and color of their hair can affect their on both a personal, societal, and professional level. An article by Takeda et al. titled "Hair Color Stereotyping and CEO Selection in the United Kingdom" discusses hair color stereotypes as they relate to women in the workplace, examining topics such as job progression, mobility and the rise to corporate suites (2006). Stereotypes presented in the study include labeling blondes as incompetent but likeable, and redheads as competent but temperamental. The study seeks to explore the relationship between hair color bias and CEO selection through the analysis of data collected from CEOs of the top 500 members of the London Financial Stock Exchange. The study uses listing of companies provided by the Financial Times Stock Exchange (FTSE) in 2004, annual reports for the 2003-2004 fiscal year, and photographs of the CEOs to determine hair color. CEOs were subsequently categorized by hair color ranging from blonde, redhead, brunette, and black. To determine the ratio between the numbers of CEOs found with a particular hair color in relation to the distribution of that hair color within the general population of the United Kingdom, a chi-square statistical goodness-of-fit test was computed. The test revealed a p-value of zero which reveals a significant difference in the distribution between the two populations, suggesting that biases based on hair color do in fact exist in the workplace today. The study found that:

> Blondes, who are viewed historically as incompetent and likeable, were underrepresented in positions of corporate leadership in the UK. Redheads, while a miniscule number in the U.K. population, were over selected to lead of the United Kingdom's (and Europe's) largest, wealthiest companies (Takeda et al., 2006).

The authors conclude that the stereotyping of blondes as incompetent affects the status of blondes in society and the workplace today. They maintain that if one group is labeled as incompetent, it restricts them from being able to progress in corporate hierarchy, showing that such labeling does affect placement into leadership positions. Though hair color may not be the only defining factor in the assigning of roles to women in the workplace, the study by Takeda et al. establishes this as a factor. If women are perceived as less intelligent or capable due to the color of their hair, it may have direct impact on how they perceive themselves, which may in turn promote lower self esteem.

M. K. Rich and T. F. Cash's study, "The American Image of Beauty: Media Representations of Hair Color for Four Decades," examined the women's magazines *Ladies Home Journal* and *Vogue* from 1950 to 1989, as well as *Playboy Magazine* centerfolds from 1953 to 1989, to analyze the depiction of women's beauty in society as reflected in hair color (1993). The samples were limited to "adult Caucasian females with discernible hair color," that were then classified by one of 10 shades of hair color as identified by the *Clairol Professional Encyclopedia Haircolor* (1990). These classifications included: light blonde, medium blonde, dark blonde, light/medium brown, dark brown, black, auburn, red, gray/silver, and frosted brunette. Rich and Cash's study showed that out of a sample of 750 hair color observations, blonde hair was depicted more frequently in these magazines than other hair colors. As the percentage of blondes in each magazine averaging over a span of four decades exceeded the base rate of blondes in the United States, the study concluded that, "Society's beauty standards of hair color conveyed by these media did not truly represent the population," thus sending the message to society that the blonde hair color is the ideal for women (1993).

Much of the research presented in the previous section directly influenced the methodology for the research of "The Sociology of Hair," as the survey instrument used in this study was conducted similarly to the one conducted by Swami et al., using color drawings of female figures to determine participants' ratings of each drawing as attractive based on different physical attributes (2008). For the purposes of this study, digitally modified, three-dimensional pictures of women were presented as stimuli for the survey instruments. In order to establish the association of personality traits on the basis of hair color and length, the relationships between blondes and brunettes, blondes and redheads, and redheads and brunettes were tested. Like the study by Swami et al., this study seeks to study the differences, if any, between men and women rating the stimuli.

Methodology

This study attempted to determine whether women are assigned specific personality traits based on their hair color and length within the setting of a college campus. How hair is associated with personality, if at all, and is there any evidence to suggest that these associations are different between men and women? In order to conduct this study, surveys were administered to a randomly collected sample of students. In the literature reviewed pertaining to this study, none of them examine

this phenomenon among young college students. Before the findings of this study are discussed, it is important to first present the methodology detailing how the study was conducted. In it, the research questions are presented, operationalization of the study, delimitations, the population used and sampled, and the problems encountered while conducting the study. The surveys collected demographic information about participants and allowed each participant to administer personality traits based on the picture presented. Demographic data collected included age, gender, race, major, political affiliation, natural hair color, current hair color, and whether they had altered the state of their natural hair, i.e. straightening, perming (which chemically alters straight hair to make it curly), and relaxing. It was important to collect this demographic data in order to make associations between men and women, and to determine if any other association exists between other variables in the study. For example, it is possible that a student may judge the stimuli based on their race, or their own natural or changed hair color. The participants then were asked to assign associations to the picture based on the following variables: attractiveness, femininity, confidence, happiness, value of appearance, high and low maintenance, trustworthiness, intelligence, aggressiveness, and likability. Based on a five point scale which ranged from strongly disagree (1) to strongly agree (5), participants were asked to rate whether they agreed with the statements provided. The statements presented in the survey were very straightforward and brief; for example: "I think this individual is attractive." Although the survey contained 11 different attributes, there was only one statement per attribute making the surveys brief and easily completed.

The surveys were conducted in large numbers ranging from 15-40 students at one time. Professor were contacted in advance at the Western Connecticut State University and allowed the researcher time to conduct the surveys. It was easier to solicit the help of professors on the campus to achieve the collection of data, as requesting student participation on an individual case-by-case basis may have taken significantly more time. Professors were able to explain to students with whom they had already developed relationships that they were requesting their help with this study. This may have been an important factor in achieving accurate date from students as they may have been more willing to participate in the study. All samples were taken on the University campus, in every classroom building, as well as the school's library. Twenty to 27 surveys of each kind (with different pictures) were administered, resulting in a total population size of 197 students. Participants were selected regardless of race, age, or gender and the surveys were administered randomly. Each class visited was given one type of survey to avoid confusion or bias between student participants. Students were not alerted as to the purposes of the study, but were asked to be as honest as possible with their answers. It was also important to encourage participants to take part in the study because it would be conducted ethically. As such, each class was notified that the surveys would be kept anonymous, and that their participation would be voluntary. This pledge to conduct the study ethically was given prior to administering the surveys.

Few problems were encountered in the administration of this study. Most students who were in attendance at the classes used were willing to participate in the study although there a very small percentage seemed uncomfortable. The main problems encountered had to do with participants' questions regarding the survey, picture uniformity, color representation, and identification. Some students were unsure about the wording of some questions presented on the survey and sought clarification, although these students only represented a small number of the total students sampled, so it is difficult to determine whether or not a majority of students were uncertain about parts of the survey and declined requesting clarification or if these students were anomalous. It was easy to clarify questions about the survey without revealing the intentions of the study or influencing participant's responses.

The second problem faced was picture uniformity. The editing software that was used to digitally alter the hairstyles of the Caucasian stimuli was unable to produce the same results for the African American stimuli. The same woman was used as the stimulus and was presented as blonde with long hair, a blonde with short hair, a brunette with long and short hair, and a redhead with long and short hair. It was difficult to find an appropriate picture that could be manipulated in a similar way for the African American pictures which were to be presented with both natural and processed hairstyles. Therefore, the attempt to use the same woman was unsuccessful. It is uncertain if this directly affected this study's findings.

Last, color representation and identification may have presented a problem which may have directly influenced survey results. For most people, hair colors like "blonde" and "redhead" are easily identifiable and considered universal between groups of people. For the purposed of this study, the dark haired woman presented in the "brunette long" and "brunette short" stimuli may not have been seen as such by participants. It is likely that participants could have viewed the stimuli as a black-haired or dark-haired woman. This is a similar concern for the stimulus labeled "redhead long" and "redhead short" in this study. This study may have not distinguished these hair colors as it hoped to present them, representing their colors to the universal sentiment. It is uncertain whether this was the case and whether this had any bearing on the results found in this study, but should be considered for future studies on the matter.

SEX	TABLE 1	FREQUENCY	PERCENT
	Male	82	41.6
	Female	114	57.9
	No Response	1	0.5
	Total	197	100
RACE			
	Hispanic	19	9.6
	African American	8	4.1
	Caucasian	156	79.2
	Native American	1	0.5
	Asian/ Pacific Islander	5	2.5
	Other	7	3.6
	No Response	1	0.5
	Total	197	100
MAJOR			
	Ancell School of Business	37	18.8
	Arts and Sciences	79	40.1
	Professional Studies	58	29.4
	Visual and Performing Arts	8	4.1
	Undeclared	14	7.1
	No Response	1	0.5
	Total	197	100

Findings

It is important to first discuss the demographic data of the respondents of this study in order to understand how participants judged the stimuli. After sampling randomly selected groups of students, the demographics of the population did not prove to be very diverse. Of the 197 students that were surveyed, a majority of students were brunette, female, Caucasian, and belonged to the School of Professional Studies. Due to the lack of diversity of the population it becomes increasingly difficult to make conclusions about the underrepresented demographics within the population, namely, men and African Americans or minorities. Although the population of the sample lacks the diversity needed to make sound conclusions about the views of a particular demographic, the results demographic of this study are almost directly proportionate to the broader community within the University. Table 1 above represents the population's sex, race and major demographic.

Table 2

Natural Hair Color		
	Frequency	**Percent**
Blonde	33	16.8
Brunette	130	66
Redhead	4	2
Black	28	14.2
No Response	2	1
Total	197	100
Color Changed To		
	Frequency	**Percent**
Blonde	13	6.6
Highlights	12	6.1
Brunette	4	2.0
Red	5	2.5
Multiple	1	0.5
Other	2	1.0
No Response	1	0.5
Not Applicable	157	79.7
999	2	1.0
Total	197	100

Unlike the studies discussed in the literature review section of this paper, this study was not limited to white students only. The purposes of this study were limited to white and black stimuli only, as it may be interesting to determine any statistically significant correlation between the responses of white and those of blacks.

The second demographic worthy of mention are the responses to the question regarding natural hair color (Table 2). Of 197 participants, 130 of these were brunette while only 33 were blonde, 26 had black hair, and four were redheads. Table 2 below represents the demographic for natural hair color and changed hair color. The section of the table titled "Color Changed To" represents the current hair color of the participants who had changed the color of their hair in some way. Although those who had changed their hair color to blonde, and those who now had

highlights are almost equal, many of the highlights that had been added were blonde. Some participants had noted that they darkened their already brown hair, and only five participants changed their hair color to red. Overall, though the majority of participants were brunettes, the hair color change of choice was blonde. In addition, 71.6% of participants responded that they currently had altered the state of their natural hair, while 27.9% had not. 20% of participants responded that they currently changed their hair color in some way, this included highlights, lowlights, and dyeing, while 80% had not. The ages of participants surveyed for this research ranged from 18 to 63 years.

Table 2.1

Stimulus' Attractiveness

	Frequency	Percent
Strongly Disagree	4	2
Disagree	6	3
Neutral	51	25.9
Agree	105	53.3
Strongly Agree	31	15.7
Total	197	100

Stimulus' Femininity

	Frequency	Percent
Strongly Disagree	1	0.5
Disagree	1	0.5
Neutral	7	3.6
Agree	96	48.7
Strongly Agree	92	46.7
Total	197	100

Stimulus' Confidence

	Frequency	Percent
Strongly Disagree	1	0.5
Disagree	10	5.1
Neutral	63	32
Agree	96	48.7
Strongly Agree	27	13.7
Total	197	100

Stimulus' Happiness

	Frequency	Percent
Strongly Disagree	1	0.5
Disagree	21	10.7
Neutral	81	41.1
Agree	84	42.6
Strongly Agree	10	5.1
Total	197	100

Stimulus' Value of Appearance

	Frequency	Percent
Disagree	3	1.5
Neutral	49	24.9
Agree	103	52.3
Strongly Agree	42	21.3
Total	197	100

High Maintenance

	Frequency	Percent
Strongly Disagree	2	1
Disagree	43	21.8
Neutral	89	45.2
Agree	45	22.8
Strongly Agree	18	9.1
Total	197	100

Now that the demographics have been presented, this study's findings relating how participants rated each variable overall is worthy of discussion. Tables 2.1 and 2.2 represent the frequencies determined through participant responses. The first table represents the following variables: attractiveness, femininity, confidence, happiness, value of appearance, and high maintenance, while the second table represents low maintenance, trustworthiness, intelligence, likability, and aggressiveness.

As presented in Figure 2.1 participant responses seemed to be mostly positive. For attractiveness, a majority of participants agreed that the stimuli presented to them were attractive. This was the same for femininity, confidence, and happiness and value of appearance. In contrast, a majority of participants were neutral about whether or not the stimuli presented seemed high maintenance, while 39.1% or participants agreed with the statement: "This individual could be labeled 'high maintenance.'"

Table 2.2 provides participants' responses on low maintenance, high maintenance, and aggressiveness variables. The majority of participants responded in the neutral to these three categories, although 37.6% of participants responded that they disagreed or strongly disagreed with the statement, "This individual could be labeled 'low maintenance.'" Regarding aggression,36.1% of participants disagreed or strongly disagreed with the statement: "I think this individual is aggressive." Although

Table 2.2

Low Maintenance

	Frequency	Percent
Strongly Disagree	21	10.7
Disagree	53	26.9
Neutral	100	50.8
Agree	18	9.1
Strongly Agree	3	1.5
No Response	2	1
Total	197	100

Stimulus' Trustworthiness

	Frequency	Percent
Strongly Disagree	10	5.1
Disagree	18	9.1
Neutral	137	69.5
Agree	30	15.2
Strongly Agree	2	1
Total	197	100

Stimulus' Aggressiveness

	Frequency	Percent
Strongly Disagree	20	10.2
Disagree	51	25.9
Neutral	99	50.3
Agree	23	11.7
Strongly Agree	3	1.5
Total	196	99.5
System	1	0.5
	197	100

Stimulus' Intelligence

	Frequency	Percent
Strongly Disagree	2	1
Disagree	5	2.5
Neutral	126	64
Agree	56	28.4
Strongly Agree	5	2.5
No Response	2	1
Total	196	99.5
System	1	0.5
	197	100

Stimulus' Likability

	Frequency	Percent
Disagree	3	1.5
Neutral	92	46.7
Agree	91	46.2
Strongly agree	11	5.6
Total	197	100

this data provides some insight into participant's overall responses, the data presented above remains inconclusive. To take a closer look into the relationships between variables, t-tests for Levene's Equality of Variances were conducted using Statistics Package for the Social Sciences software (SPSS). There were six different possible relationships between hair colors. These were black and brunette, black and redhead, black and blonde, brunette and redhead, brunette and blonde, and, redhead and blonde. These tests divide the groups strictly on the basis hair color, regardless of hair length. The results represented in Table 3.0 identify only the variables that present values of statistical significance.

The t-tests for independent groups were used to compare the means between different groups. This test showed that there is a significant variance between variables. However, the results of the independent samples t-test for equality of means showed no statistical significance, between as the p-values were all greater than .05 (95% confidence). These results are highly inconclusive, presenting a great difficulty in drawing any definitive conclusions. Using SPSS, the data was analyzed using cross tabulations and chi-square tests, in addition to analysis of bar charts of the collected data to construct a better representation of participant responses.

Table 3.0

	F	ssig.
Black and Brunette		
Stimulus' Femininity	4.74	0.032
Stimulus' Value of Appearance	4.27	0.041
Stimulus' Intelligence	3.96	0.490
Stimulus' Likability	8.82	0.004
Black and Redhead		
Stimulus' Femininity	5.35	0.023
Black and Blonde		
Stimulus' Likeability	4.57	0.035
Brunette and Redhead		
Stimulus' Value of Appearance	4.20	0.043
Brunette and Blonde		
Stimulus' Trustworthiness	9.01	0.003
Stimulus' Intelligence	4.14	0.045

The first relationship was between participants who were given the surveys containing images of African American women and the brunette (both long and short) stimuli. Previous tests, specifically Levene's Test for Equality of Variances, revealed that there was some significance between responses pertaining to the stimuli's femininity, intelligence, likability, and value of appearance as shown in Table 3.1. The variable representing femininity resulted in some significance between variances using Levene's

Test for Equality of Variances for grouping between blacks and redheads as well. The cross tabulation data showed that all participants in the sample who were given the surveys containing the African American women responded that they either agreed or strongly agreed that the stimuli appeared to be feminine. The table below, Table 3.1 represents these results. As seen in the table below, there may have been some variance between participants, because all participants responded favorably in surveys containing the black stimuli, although responses varied for the brunette and redhead stimuli.

Table 3.1

	Femininity	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Black	Count	0	0	0	31	21	52
	% within Stimulus' Femininity	0	0	0	32.292	22.826	26.396
Brunette	Count	1	1	2	21	25	50
	% within Stimulus' Femininity	100	100	28.571	21.875	27.174	25.381
Redhead	Count	0	0	3	20	23	46
	% within Stimulus' Femininity	0	0	42.857	20.833	25	23.350
Blonde	Count	0	0	2	24	23	49
	% within Stimulus' Femininity	0	0	28.571	25	25	24.873
Total	Count	1	1	7	96	92	197
	% within Stimulus' Femininity	100	100	100	100	100	100

The variable for stimulus' value of appearance was the second variable which resulted in some significance by Levene's Test for Equality of Variances. The chi-square value for this variable proved insignificant as well, but the cross tabulation testing allows for better analysis of the data. Table 3.2 (left) presents responses of the participants for the variable representing Value of Appearance for the stimuli. Below, as with femininity, the majority of participants who received the surveys containing the black stimulus agreed or strongly agreed that the stimuli seemed to value her appearance. The survey sample for blondes and brunettes were the only group that contained participants who disagreed that the stimuli seemed to value their appearance.

Table 3.2

Value of Appearance		disagree	neutral	agree	strongly agree	Total
Black	Count	0	12	30	10	52
	% within Stimulus' Value of Appearance	0	24.490	29.126	23.810	26.396
Brunette	Count	1	16	21	12	50
	% within Stimulus' Value of Appearance	33.333	32.653	20.388	28.571	25.381
Redhead	Count	0	10	26	10	46
	% within Stimulus' Value of Appearance	0	20.408	25.243	23.810	23.350
Blonde	Count	2	11	26	10	49
	% within Stimulus' Value of Appearance	66.667	22.449	25.243	23.810	24.873
Total	Count	3	49	103	42	197
	% within Stimulus' Value of Appearance	100	100	100	100	100

The third variable that showed significance was when Levene's Test for Equality of Variances was conducted for intelligence. As represented in Table 3.1, the groupings for black and brunette, and brunette and blonde resulted in some significant differences. Table 3.3 presents the results when cross tabulations were conducted. As shown, participants who rated blondes and brunettes responded with mostly neutral sentiment about the stimuli's intelligence, while blacks received the highest number of people who agreed that the stimuli seemed intelligent. Blondes received the highest number of participants who disagreed that the stimuli seemed intelligent.

When conducted for blacks and brunettes, Levene's Test for Equality of Variances showed that there was some significance between variances. Chi-squares and cross tabulations were done to further observe the data for the likability variable. The

Table 3.3								Total
	Intelligence	strongly disagree	disagree	Neutral	agree	strongly agree	no response	
Black	Count	0	1	31	18	0	1	51
	% within Stimulus' Intelligence	0	20	24.603	32.143	0	50	26.020
Brunette	Count	2	2	28	17	1	0	50
	% within Stimulus' Intelligence	100	40	22.222	30.357	20	0	25.510
Redhead	Count	0	0	31	12	3	0	46
	% within Stimulus' Intelligence	0	0	24.603	21.429	60	0	23.469
Blonde	Count	0	2	36	9	1	1	49
	% within Stimulus' Intelligence	0	40	28.571	16.071	20	50	25
Total	Count	2	5	126	56	5	2	196
	% within Stimulus' Intelligence	100	100	100	100	100	100	100

chi-square value of this variable was .528, showing no significant statistical difference, but cross tabulations provided more insight. Table 3.4 presents this data. According to the results of the cross tabulations, while no participants responded that they disagreed that the black and redhead stimuli were likable, the brunette (three participants) and blonde (one participant) stimuli showed some variation. Blondes received the most responses from participants who felt that they were likable.

Table 3.5 represents the cross tabulation data for the trustworthiness variable. The table shows that brunettes received the most responses from participant who disagreed that they could trust the stimuli presented in the survey, while blondes received the least number of participants who disagreed that the stimuli could be trusted. Blacks and redheads were believed to be trustworthy by an equal number of respondents.

In addition to tests conducted between groups based on hair color and types (for example blonde and brunette), t-tests were also conducted within sample groups. There were four variations of groups that were tested to determine whether and statistical significant relationships actually existed within groups. These variations were as follows: black processed and black natural, brunette short and brunette long, redhead short and redhead long, blonde short and blonde long. The following tables (Tables 4.1-4.2) represent any significant findings of the tests. Table 4.1 represents the results of Levene's Test for Equality of Variances, and t-test for the equality of means between participant responses for the black woman with processed hair and the black woman with natural hair. Table 4.1 below shows that there may have been significance between variances for participants who had the survey containing the black woman with natural hair and the black woman with processed hair, but revealed no significance between the means of these as the tests for femininity and low maintenance where .062 and .032 respectively.

Table 3.4						Total
	Likability	disagree	Neutral	agree	strongly agree	
Black	Count	0	27	25	0	52
	% within Stimulus' Likeability	0	29.348	27.473	0	26.396
Brunette	Count	2	24	19	5	50
	% within Stimulus' Likeability	66.667	26.087	20.879	45.455	25.381
Redhead	Count	0	20	24	2	46
	% within Stimulus' Likeability	0	21.739	26.374	18.182	23.350
Blonde	Count	1	21	23	4	49
	% within Stimulus' Likeability	33.333	22.826	25.275	36.364	24.873
Total	Count	3	92	91	11	197
	% within Stimulus' Likeability	100	100	100	100	100

The next variation tested the significance of variances or means between brunettes with long hair and brunettes with short

Table 3.5							Total
	Trustworthiness	strongly disagree	disagree	neutral	agree	strongly agree	
Black	Count	3	3	6	0	0	52
	% within Stimulus' Trustworthiness	30	16.667	26.277	33.333	0	26.396
Brunette	Count	4	8	32	5	1	50
	% within Stimulus' Trustworthiness	40	44.444	23.358	16.667	50	25.381
Redhead	Count	2	4	30	9	1	46
	% within Stimulus' Trustworthiness	20	22.222	21.898	30	50	23.350
Blonde	Count	1	3	39		0	49
	% within Stimulus' Trustworthiness	10	16.667	28.467	20	0	24.873
Total	Count	10	18	137	30	2	
	% within Stimulus' Trustworthiness	100	100	100	100	100	197

	Table 4.1	Levene's Test		T-Test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Stimulus' Femininity	Equal variances assumed	5.42	0.024	1.905	49	0.063
	Equal variances not assumed			1.908	48.802	0.062
Low Maintained	Equal variances assumed	4.08	0.049	0.979	49	0.332
	Equal variances not assumed			0.999	25.001	0.327

	Table 4.2	Levene's Test		T-Test for Equality of Means				
		F	Sig.	T	df	Sig. (2-tailed)	95% Confidence	
							Lower	Upper
High Maintenance	Equal variances assumed	6.593	0.013	-3.489	48	0.001	-1.212	-0.326
	Equal variances not assumed			-3.431	38.890	0.001	-1.223	-0.316
Low Maintenance	Equal variances assumed	2.145	0.150	2.626	48	0.012	0.149	1.126
	Equal variances not assumed			2.669	43.372	0.011	0.156	1.120
Stimulus' Intelligence	Equal variances assumed	0.081	0.777	2.472	48	0.017	0.093	0.907
	Equal variances not assumed			2.438	40.795	0.019	0.086	0.914

hair. Table 4.2 shows that some significant difference seems to exist some between variances when the stimuli were judged based on whether they seemed to be high maintenance. However, for the low maintenance and intelligence variables, p-values of .012 and .017 respectively indicate that there is a statistically significant difference between the mean results for these variables.

Table 4.3 presents the difference of variances and means between the redhead with short hair and the redhead with long hair shows that this proved significant with only one variable. As presented below, there is a significant between the mean responses between the redhead long stimulus and the redhead short stimulus. Cross tabulations between the data shows that more participants considered the redhead with short hair to be happier than they believed the redhead with long hair to be.

Multiple variables showed statistical differences between responses for the blonde with short hair and the blond with long hair, as shown in Table 4.4. The variables for attractiveness, value of appearance, high maintenance, low maintenance, and intelligence were the only variables that resulted in any statistical differences between either variances or means of participants' responses. The p-value of .003 when a t-test for equality of means was calculated for attractiveness shows that there is some statistical significance between the means of the two groups, and cross tabulations of this data shows that more participants responded that they believed the

	Table 4.3	Levene's Test		T-Test for Equality of Means				
		F	Sig.	T	df	Sig. (2-tailed)	95% Confidence Intervals	
							Lower	Upper
Stimulus' Happiness	Equal variances assumed	0.394	0.533	2.438	44	0.019	0.083	0.874
	Equal variances not assumed			2.438	37.41	0.020	0.081	0.876

	CROSS TABULATIONS	Redhead Short	Redhead Long	Total
Stimulus' Happiness	Disagree	0	5	5
	Neutral	10	12	2
	Agree	13	5	18
	Strongly Agree	0	1	1
Total		23	23	46

	Figure 4.4	Levene's Test		T-Test for Equality of Means				
		F	Sig.	T	df	Sig. (2-tailed)	95% Confidence Interval	
							Lower	Upper
Stimulus' Attractiveness	Equal variances assumed	1.270	0.266	3.193	47	0.003	0.275	1.212
	Equal variances not assumed			3.182	45.099	0.003	0.273	1.214
Stimulus' Value of Appearance	Equal variances assumed	3.345	0.074	2.568	47	0.013	0.116	0.9542
	Equal variances not assumed			2.553	42.861	0.014	0.112	0.9576
High Maintenance	Equal variances assumed	.770	0.190	2.081	47	0.043	0.018	1.0325
	Equal variances not assumed			2.089	46.099	0.042	0.019	1.0308
Low Maintenance	Equal variances assumed	4.134	0.048	0.964	47	0.340	-42.646	121.12
	Equal variances not assumed			0.984	24.001	0.335	-43.037	121.51
Stimulus' Intelligence	Equal variances assumed	4.540	0.038	-1.031	47	0.308	-123.60	39.858
	Equal variances not assumed			-1.009	23.000	0.323	-127.69	43.941

blonde with long hair to be attractive than the blonde with short hair. A similar result was produced for both the high maintenance and low maintenance variables. The majority of participants believed that the blonde with long hair seemed high maintenance, while more participants responded that they did not believe that the blonde with short hair was high maintenance. This directly correlates with the data for the low maintenance variable, as more participants disagreed that the blonde with long hair stimulus seemed to be low maintenance.

As conducted for the other research questions, Levene's Test for Equality of Variances and t-tests for equality of means were also conducted to establish relationships between male and female responses to the questions posed to participants regarding perceptions about hair symbolism. Table 5.1 contains the results for the variables that showed some statistical differences p-value less than *a* (.05). The results show that there was a significant difference between how males and females responded to the variables for high maintenance and intelligence. For intelligence, there only seems to a significant difference between the variances but not the means. When the cross tabulations for both variables were produced, it showed that more female participants agreed that the stimuli seemed intelligent than did males, while more males believed the stimuli to be high maintenance than did females.

Conclusion

Stereotypes about hair have existed throughout history, and persist within American society even today. For example, the Gaels of Ancient Rome who were captured by Caesar were forced to dye their hair red and learn German in order to signify class rank (Suetonius, 405). Roman law once required prostitutes, or "ladies of the night" to wear blonde wigs. Following the repeal of this law, blonde wigs became part of everyday fashion. Perhaps this is the beginning of the belief that "blondes have more fun." This

Table 5.1		Levene's Test		T-Test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	95% Confidence Interval	
							Lower	Upper
Highly Maintained	Equal variances assumed	4.065	0.045	3.215	194	0.002	0.160	0.669
	Equal variances not assumed			3.176	166.6	0.002	0.157	0.672
Stimulus' Intelligence	Equal variances assumed	5.764	0.017	-1.2	93	0.230	-46.363	11.226
	Equal variances not assumed			-1.43	113	0.156	-41.931	6.794

is apparent in the portrayal of blondes, brunettes, and even redheads in the media and popular culture. Popular icon Marilyn Monroe for which the term "blonde bombshell" was coined, played a huge role in the association with blonde as being the most attractive hair color. Brunette-colored hair, which about 60% of the American population has, is therefore the most common color, and translates as boring. Brunettes are perceived as dependable and emotionally secure; they are the "Plain Janes" of society. In popular culture, redheads are considered to have fiery tempers, be passionate lovers, and be courageous. Breeling notes, "There are very widely accepted stereotypes associated with hair color; socio-cultural associations with hair color accompany these stereotypes. Some are age-old, others are recent, but all are all are perpetuated by the most frequent culprits in generating cultural stereotypes, television and movies" (2008).

The stated purpose of this study was to determine what symbols, trends, similarities or differences existed between or among groups of students relating to the perception of women's hair on the Western Connecticut State University campus. Overall, a majority of participants viewed the all of the images of women presented as stimuli as attractive, feminine, confident, and happy; while a majority of participants remained largely neutral in their views of the women presented in the stimuli as high maintenance, low maintenance, or aggressive. The results of Levene's Test for Equality of Variances showed that there were some differences between black and brunette, black and redhead, black and blonde, brunette and redhead, brunette and blonde; but none between redheads and blondes. Blacks were the most positively rated stimuli, and most participants perceived the women depicted in the images as attractive, intelligent, happy, confident, trustworthy, and feminine. Blacks were followed by blondes in participants' ratings of femininity, although blondes were viewed as less intelligent by a majority of participants. Brunettes with long hair were considered to be higher maintenance than the brunettes with short hair, while more the brunette with short hair was perceived as more intelligent than the brunette with long hair. More participants considered the redhead with short hair to be happier than the redhead with long hair. The blonde with long hair was perceived to be more attractive and higher maintenance than the blonde with short hair.

In conclusion, this attempt to study the stereotypes and associations regarding hair within the college community was largely successful in that some significant results were produced. In order for one to better understand the society in which one lives, it is important to not only rely upon the observations of others, but to test and recreate hypotheses and methods to formulate trends and relationships. The stereotypes which exist in popular culture should not simply be dismissed. Over time, the stereotypes of hair have become universal symbols which make up a social language that is commonly accepted in society.

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